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MANNAVA & KANG 281 MURTHA ST ALEXANDRIA, VA 22304			PHILLIPS, HASSAN A	
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			2151	

DATE MAILED: 01/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/739,844

Applicant(s)

BONEFAS ET AL.

Examiner

Hassan Phillips

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8,9. 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

The Information Disclosure Statement's (IDS) filed on January 4, 2002, and May 10, 2002, have been received and considered by the examiner.

Drawings

The Drawings filed on August 6, 2001, have been received and considered by the examiner.

Claim Objections

Claims 1, 2, 5, 9, 12, and 16, are objected to because of the following informalities: In claims 1, 2, 5, 9, 12, and 16, the phraseology "adapted to" is not a positive limitation since it only requires the ability to perform a function. The phrase "adapted to", therefore, does not constitute a limitation in any patentable sense, *in re Hutchinson*, 69 USPQ 138. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by Ramasubramani et al., U.S. Patent 6,507,589.

In considering claim 5, Ramasubramani et al. discloses a method and apparatus for providing network access over different wireless networks comprising:

- a) a protocol gateway 214 encapsulating a fundamental network protocol, which underlies each of said one or more wireless network protocols, and communicates messages between client devices and servers over a selected wireless network protocol through the protocol gateway, independent of the selected wireless protocol, (col. 6, lines 10-24);
- b) a message router for routing a message between the protocol gateway, and a server on the internet, (col. 13, lines 42-56, col. 10, lines 60-62).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-11, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramasubramani et al., and further in view of Boyle et al., U.S. Patent 6,138,158.

In considering claims 1, and 6-8, Ramasubramani et al. discloses a method and apparatus for providing network access over different wireless networks comprising:

- c) client devices, 202, 204, 206, for accessing the internet, (col. 5, lines 57-67, col. 6, lines 1-9);
- d) servers providing services for wireless communication devices, (col. 6, lines 25-39);
- e) a plurality of wireless networks, each adapted to communicate messages between the client and the server, and support one or more wireless protocols, (col. 5, lines 61-67, col. 6, lines 1-9);
- f) a protocol gateway 214 encapsulating a fundamental network protocol, which underlies each of said one or more wireless network protocols, and communicates messages between the client and the server over a selected wireless network protocol independent of the selected wireless protocol, (col. 6, lines 10-24);
- g) a message router for routing a message between the protocol gateway and the server, (col. 13, lines 42-56, col. 10, lines 60-62).

Although the disclosed method of Ramasubramani et al. shows substantial features of the claimed invention, it fails to explicitly disclose:

- a) a means for authenticating an origin of a message before the message is routed, and a database relating to the routing and authentication of the message.

Nevertheless, in a similar field of endeavor where messages are communicated between client devices and servers, Boyle et al. discloses a method comprising:

- a) authenticating an origin of a message, wherein said authenticating means authenticating the origin before the message is routed by a link server 114, (col. 14, lines 21-34);
- b) a database 328, which is accessible by the link server and adapted to store information relating to routing and authentication of the message, (col. 8, lines 52-67, col. 9, lines 1-2).

Authenticating the origin of messages by routers is well known in the art. Thus, given the teachings of Boyle et al., it would have been obvious to a person of ordinary skill in the art, at the time of the present invention, to modify the teachings of Ramasubramani et al., in order to authenticate the origin of a message before routing the message between the protocol gateway and the server. This would have verified the integrity of the message by ensuring that the message is valid, authorized, and unaltered. Therefore, it would have been apparent to one of ordinary skill in the art to provide a router to authenticate the origin of a message in order to provide data identification while maintaining a secure system, Boyle et al., col. 2, lines 29-56. Therefore, the claimed inventions (claims 1 and 6-8) would have been an obvious modification of the methods disclosed by Ramasubramani et al., in view of Boyle et al.

In considering claims 2, 9, although the disclosed method of Ramasubramani et al. shows substantial features of the claimed invention, it fails to explicitly disclose:

- a) a transport layer application that defines a maximum segment size, determines the message exceeds the maximum segment size, and

segments the message into a plurality of message segments that don't exceed the maximum segment size.

Nevertheless, the method of Boyle et al. teaches:

- a) an application 412 that defines a maximum segment size, determines if the message exceeds the maximum segment size, and segments the message into a plurality of message segments, none of which exceeds the maximum segment size, (col. 13, lines 37-48).

Message segmentation is well known in the art. Thus, given the teachings of Boyle et al., it would have been obvious to a person of ordinary skill in the art, at the time of the present invention, to modify the teachings of Ramasubramani et al., in order to segment messages in the protocol gateway by a transport layer application. This would have allowed messages exceeding the bandwidth of the system to be delivered, instead of discarded. Thus, it would have been apparent to one of ordinary skill in the art to segment messages that exceed the bandwidth of the system in order to ensure that messages larger than the bandwidth of the system are still delivered, Boyle et al., col. 3, lines 15-27. Therefore, the claimed inventions (claims 2 and 9) would have been an obvious modification of the methods disclosed by Ramasubramani et al., in view of Boyle et al.

In considering claims 3 and 10, see Ramasubramani et al., col. 8, lines 20-35.

In considering claims 4 and 11, see Ramasubramani et al., col. 8, lines 20-35.

Claims 12-18, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramasubramani et al., and further in view of Mann et al., U.S. Patent 5,167,035.

In considering claim 12, Ramasubramani et al. discloses a method a method of routing a message in a communications system comprising:

- a) a server adapted to run a server application, (col. 6, lines 25-39);
- b) a plurality of agents coupled to the server, (col. 7, lines 1-5);
- c) a plurality of protocol gateways, each of which is coupled to each one of the plurality of agents, (col. 3, lines 50-67, col. 4, lines 1-7);
- d) a wireless network adapted to couple a server, through the plurality of agents, and the protocol gateway, to a plurality of client devices, each of which is adapted to run a client application, (Fig.'s 6-9, and col.9, lines 26-32);
- e) transmitting a message from one of the plurality of client devices and receiving the message at the protocol gateway, (col. 13, lines 56-67);
- f) transmitting from a protocol gateway to one of a plurality of client devices an acknowledgment message, (col. 7, lines 1-33);
- g) transmitting from a protocol gateway through an agent a message, and routing the message to a server on the internet, (col. 7, lines 1-12).

Although the disclosed method of Ramasubramani et al. shows substantial features of the claimed invention, it fails to explicitly disclose:

- a) segmenting the message into one or more message segments, and determining if the message exceeds a defined maximum size;
- b) determining at one of the plurality of client devices, that at least one message segment constitutes a complete message.

Nevertheless, in a similar field of endeavor where messages are communicated between client devices and servers, Mann et al. discloses a method comprising:

- a) within a client device, defining a maximum segment size, (col. 8, lines 39-41, col. 9, lines 28-30);
- b) within a client device, determining if the message exceeds the maximum segment size, and segmenting the message into one or more message segments, none of which exceeds the maximum segment size, (col. 8, lines 39-41, col. 9, lines 30-33);
- c) determining at a client device that at least one message segment constitutes a complete message, (col. 5, lines 30-49).

In the methods taught by Ramasubramani et al. it is obvious that the agents are acting as routers in routing messages to and from servers located on the internet. It is also obvious in the methods taught by Ramasubramani et al. that in two-way communication the pull agent transmits acknowledgment messages from the server to the client devices.

Furthermore, the segmentation of messages before their transmittal is well known in the art. Thus, given the teachings of Mann et al., it would have been obvious to a person of ordinary skill in the art, at the time of the present invention, to modify the

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teachings of Ramasubramani et al., in order to segment a message within a client device, and determine if at least one segment constitutes a complete message. The motivation for doing so would have been to efficiently transmit messages without having to rely on a particular delivery path, Mann et al., col. 5, lines 42-52. Therefore, the claimed invention (claim 12) would have been an obvious modification of the methods disclosed by Ramasubramani et al., in view of Mann et al.

In considering claim 13, although not explicitly stated, it would have been obvious to a person of ordinary skill in the art at the time the invention was made, that the methods taught by Ramasubramani et al. provide for transmitting second acknowledgment messages acknowledging receipt of at least one message segment transmitted from the server, to the protocol gateway, to one of the plurality of client devices. See Ramasubramani et al., col. 7, lines 1-33.

In considering claim 14, the method of Ramasubramani et al. teaches:

- a) transmitting from a protocol gateway, to one of a plurality of client devices, an acknowledgment message, (col. 7, lines 1-33);

The disclosed method of Ramasubramani et al., however, fails to explicitly disclose:

- a) segmenting the message into first and second message segments, wherein each segment is not to exceed a defined maximum size;

- b) determining that the message was not received by a gateway and retransmitting a second segment.

Nevertheless, the method of Mann et al. discloses:

- a) segmenting the message into one or more message segments, none of which exceeds the maximum segment size, (col. 9, lines 30-33);
- b) determining at a client device a transmission failure if a message is sent more than the value indicated in a resend field, (col. 8, lines 33-38);
- c) retransmitting from a client device to a server, (col. 8, lines 27-38).

The segmentation of messages, before their transmittal, is well known in the art. It is also well known in the art that message segments do not always make it to their destination and are therefore resent by their sources. Thus, given the teachings of Mann et al., it would have been obvious to a person of ordinary skill in the art, at the time of the present invention, to modify the teachings of Ramasubramani et al., in order to segment a message into first and second messages within a client device, and to resend a second message if it is determined that a second message segment was not received at the protocol gateway. The motivation for doing so would have been to guarantee the transmittal of complete messages, Mann et al., col. 5, lines 30-52. Therefore, the claimed invention (claim 14) would have been an obvious modification of the methods disclosed by Ramasubramani et al., in view of Mann et al.

In considering claim 15, the method of Ramasubramani et al. teaches:

- a) transmitting from a protocol gateway, to one of a plurality of client devices, an acknowledgment message, (col. 7, lines 1-33).

The disclosed method of Ramasubramani et al., however, fails to explicitly disclose:

- a) determining at the protocol gateway that first and second message segments comprise a complete message.

Nevertheless, the method of Mann et al. discloses:

- a) determining at a server device that at least one message segment constitutes a complete message, (col. 5, lines 30-49).

The segmentation of messages, before their transmittal, is well known in the art. It is also well known in the art that message segments do not always make it to their destination and are therefore resent by their sources. Thus, given the teachings of Mann et al., it would have been obvious to a person of ordinary skill in the art, at the time of the present invention, to modify the teachings of Ramasubramani et al., in order to determine at the protocol gateway that a first message segment and a second message segment comprise a complete message. The motivation for doing so would have been to guarantee the transmittal of complete messages, Mann et al., col. 5, lines 30-52. Therefore, the claimed invention (claim 15) would have been an obvious modification of the methods disclosed by Ramasubramani et al., in view of Mann et al.

In considering claims 16, the method of Ramasubramani et al. discloses:

- a) a server adapted to run a server application, (col. 6, lines 25-39);

- b) a plurality of agents coupled to the server, (col. 7, lines 1-5);
- c) a plurality of protocol gateways, each of which is coupled to each one of the plurality of agents, (col. 3, lines 50-67, col. 4, lines 1-7);
- d) a wireless network adapted to couple a server, through the plurality of agents, and the protocol gateway, to a plurality of client devices, each of which is adapted to run a client application, (Fig.'s 6-9, and col.9, lines 26-32);
- e) transmitting a message from a server to one of a plurality of agents coupled to the protocol gateway, (col. 9, lines 61-67, col. 10 lines 1-19);
- f) transmitting a message from a protocol gateway to one of a plurality of client devices, (col. 10, lines 16-19);
- g) receiving the message at one of a plurality of client devices, and transmitting an acknowledgement message from one of the plurality of client devices to the protocol gateway, (col. 8, lines 27-35).

The method of Ramasubramani et al., however, fails to explicitly disclose:

- a) a protocol gateway segmenting the message into one or more message segments, and determining if the message exceeds a defined maximum size;
- b) determining at one of the plurality of client devices, that at least one message segment constitutes a complete message.

Nevertheless, the method of Mann et al. discloses:

- a) within a server node, defining a maximum segment size, (col. 7, lines 26-31, col. 8, lines 49-55, col. 9, lines 28-30);
- b) within a server node, determining if the message exceeds the maximum segment size, and segmenting the message into one or more message segments, none of which exceeds the maximum segment size, (col. 9, lines 30-33);
- c) determining at a client device that at least one message segment constitutes a complete message, (col. 5, lines 30-49).

The segmentation of messages, in a communications system, is well known in the art. Thus, given the teachings of Mann et al., it would have been obvious to a person of ordinary skill in the art, at the time of the present invention, to modify the teachings of Ramasubramani et al., in order to segment a message within the protocol gateway, and determine if at least one segment constitutes a complete message at a client device. The motivation for doing so would have been to efficiently transmit messages without having to rely on a particular delivery path, Mann et al., col. 5, lines 42-52. Therefore, the claimed invention (claim 16) would have been an obvious modification of the methods disclosed by Ramasubramani et al., in view of Mann et al.

In considering claim 17, the method of Ramasubramani et al. teaches:

- a) transmitting a message from one of a plurality of protocol gateways to one of a plurality of client devices, and receiving a message at one of a plurality of client devices, (col. 10, lines 16-19);

- b) transmitting from one of a plurality of client devices, to one of a plurality of protocol gateways, an acknowledgment message, (col. 8, lines 27-35).

The disclosed method of Ramasubramani et al., however, fails to explicitly disclose:

- a) within the protocol gateway, segmenting the message into first and second message segments, wherein each segment is not to exceed a defined maximum size;
- b) within the protocol gateway, determining that the message was not received by a gateway and retransmitting a second segment.

Nevertheless, the method of Mann et al. discloses:

- d) within a server, segmenting the message into one or more message segments, none of which exceeds the maximum segment size, (col. 8, lines 49-55, col. 9, lines 30-33);
- e) determining at a server node a transmission failure if a message is sent more than the value indicated in a resend field, (col. 7, lines 26-31, col. 8, lines 33-38);
- f) retransmitting from a server node to a client, (col. 8, lines 27-38).

The segmentation of messages, before their transmittal, is well known in the art. It is also well known in the art that message segments do not always make it to their destination and are therefore resent by their sources. Thus, given the teachings of Mann et al., it would have been obvious to a person of ordinary skill in the art, at the time of the present invention, to modify the teachings of Ramasubramani et al., in order

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to segment a message into first and second messages within the protocol gateway, and to resend a second message if it is determined that a second message segment was not received at one of the plurality of client devices. The motivation for doing so would have been to guarantee the transmittal of complete messages, Mann et al., col. 5, lines 30-52. Therefore, the claimed invention (claim 17) would have been an obvious modification of the methods disclosed by Ramasubramani et al., in view of Mann et al.

In considering claim 18, the method of Ramasubramani et al. teaches:

- a) transmitting from one of a plurality of client devices, to a protocol gateway, an acknowledgment message, (col. 8, lines 27-35).

The disclosed method of Ramasubramani et al., however, fails to explicitly disclose:

- a) determining at the protocol gateway that first and second message segments comprise a complete message.

Nevertheless, the method of Mann et al. discloses:

- a). determining at a server device that at least one message segment constitutes a complete message, (col. 5, lines 30-49).

The segmentation of messages, before their transmittal, is well known in the art. It is also well known in the art that message segments do not always make it to their destination and are therefore resent by their sources. Thus, given the teachings of Mann et al., it would have been obvious to a person of ordinary skill in the art, at the time of the present invention, to modify the teachings of Ramasubramani et al., in order

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to determine at the protocol gateway that a first message segment and a second message segment comprise a complete message. The motivation for doing so would have been to guarantee the transmittal of complete messages, Mann et al., col. 5, lines 30-52. Therefore, the claimed invention (claim 18) would have been an obvious modification of the methods disclosed by Ramasubramani et al., in view of Mann et al.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ramasubramani et al., U.S. Patent 6,507,589 discloses a method and apparatus for routing between network gateways and service centers.

Boyle et al., U.S. Patent 6,138,158 discloses a method for routing messages in a communications system.

Mann et al., U.S. Patent 5,167,035 discloses a method for transferring messages between a client and a server in a network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hassan Phillips whose telephone number is (703) 305-8760. The examiner can normally be reached on M-F 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (703) 305-4792. The fax phone

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number for the organization where this application or proceeding is assigned is (703) 305-7201.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.


FRANTZ B. JEAN
PRIMARY EXAMINER

HP
1/16/03